

HORSE JUDGING

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INSTRUCTION PAPER
with Examination Questions

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Horse Judging

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ADVICE TO THE STUDENT

You learn only by thinking. Therefore, read your lesson slowly enough to think about what you read and try not to think of anything else. You cannot learn about a subject while thinking about other things. Think of the meaning of every word and every group of words. Sometimes you may need to read the text slowly several times in order to understand it and to remember the thought in it. This is what is meant by study.

Begin with the first line on page 1 and study every part of the lesson in its regular order. Do not skip anything. If you come to a part that you cannot understand after careful study, mark it in some way and come back to it after you have studied parts beyond it. If it still seems puzzling, write to us about it on one of our Information Blanks and tell us just what you do not understand.

Pay attention to words or groups of words printed in **black-face type**. They are important. Be sure that you know what they mean and that you understand what is said about them well enough to explain them to others.

Rules are printed in *italics*; they, too, are important; you should learn to repeat them without looking at the book. With rules are usually given *Examples for Practice*. Work all of these examples according to the rules, but do not send us your work if you are able to get the right answers. If you cannot get the correct answer to an example, send us all of your work on it so that we can find your mistakes. Use one of our Information Blanks.

After you have finished studying part of a lesson, review that part; that is, study it again. Then go on with the next part. When you have finished studying an Instruction Paper, review all of it. Then answer the Examination Questions at the end of the Paper. It is not well to look at these questions until you have finished studying and reviewing the whole Paper.

Answer the Examination Questions in the same order as they are given and number your answers to agree with the question numbers. Do not write the questions. If you cannot answer a question, write us about it on an Information Blank before you send in any of your answers.

Remember that we are interested in your progress and that we will give you by correspondence all the special instruction on your Course that you may need to complete it. Remember, too, that you will get more good from your Course if you learn all that you can without asking for help.

[12]

INTERNATIONAL CORRESPONDENCE SCHOOLS

HORSE JUDGING

INTRODUCTORY REMARKS

1. **Horse judging** is the art of ascertaining the qualities of a horse and of weighing them in comparison with those of other horses or of an ideal horse in the mind of the judge. As the term is commonly used, however, its specific application is somewhat indefinite. It may have reference to the judging of horses competing in a show ring or to more general judging such as any person may do in distinguishing between good and inferior animals. Likewise, the term *a judge of horses* may be applied either to a person that is sufficiently proficient in judging to officiate in the show ring, or to one that is able, through more or less knowledge of horses, to distinguish merits and demerits. Show-ring judging is an art that requires a thorough knowledge of the so-called fancy points of the particular breed or class to be judged, and, further, is of direct interest to comparatively few persons. For this reason, judging will be discussed in this Section from the standpoint of the person who desires merely to select good animals, and reference will not be made to the fancy points of the different breeds and classes.

2. **The Anatomy as a Basis of Study in Horse Judging.** In learning to judge horses, it is necessary for a person to study the horse as a mechanism. The bones should be considered as levers, the muscles as the source of power, and the nervous system as the stimulator of the muscles. The conformation and quality of the bones, the depth and quality of

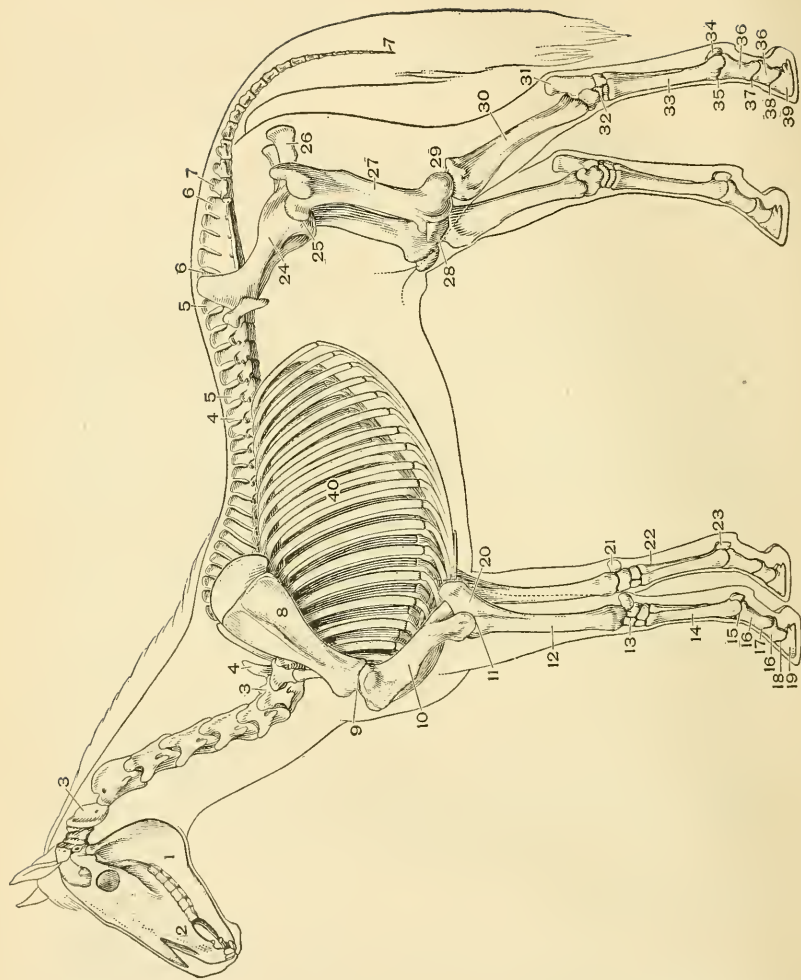


FIG. 1

the muscular covering, and the nature of the nervous system are extremely important guides to the fitness of a horse for a particular purpose.

To explain the anatomical terms that are necessary in a discussion of horse judging, a view of the skeleton of a horse with a contour view of the body is shown in Fig. 1. The bones, groups of bones, and joints that should be known by a judge of horses are numbered, their names being given below.

BONY ANATOMY OF THE HORSE

1, Lower jaw	21, Accessory carpal bone
2, Upper jaw	22, Splint bone
3 to 3, Cervical vertebræ	23, Front sesamoid bones
4 to 4, Thoracic vertebræ	24, Ilium
5 to 5, Lumbar vertebræ	25, Hip joint
6 to 6, Sacrum	26, Ischium
7 to 7, Coccygeal vertebræ	27, Femur
8, Scapula	28, Patella
9, Shoulder joint	29, Stifle joint
10, Humerus	30, Tibia
11, Elbow joint	31, Os calcis
12, Radius	32, Hock joint
13, Knee joint	33, Hind cannon bone
14, Front cannon bone	34, Hind sesamoid bones
15, Front fetlock joint	35, Hind fetlock joint
16, Front pastern bones	36, Hind pastern bones
17, Front pastern joint	37, Hind pastern joint
18, Front coffin joint	38, Hind coffin joint
19, Front coffin bone	39, Hind coffin bone
20, Ulna	40, Ribs

As the front legs of a horse bear the greater part of its weight, they are termed the *weight carriers*. The hind legs are termed the *propellers* because they apply most of the power. The bones of the front legs have no bony connection with the skeleton of the body, but are hung to it by means of strong muscles; for this reason there is less concussion on a horse when in action than if the connection between the legs and frame were solid bone. The bones of the hind legs, by which power is transmitted, are arranged in a series of angles and the femurs are connected to the skeleton by means of strong ball-and-socket

SCORE CARD FOR LIGHT MARKET HORSES

Name or number of animal.....
 Age.....
 Blemishes.....
 Unsoundnesses.....
 Estimated market value.....

GENERAL APPEARANCE	PERFECT SCORE	JUDGE'S SCORE
Height: score according to class.....	1	_____
Weight: score according to class.....	1	_____
Form: according to class, symmetrical, smooth, and stylish.....	5	_____
Condition: carrying a moderate amount of firm flesh.....	2	_____
Quality: bone clean, firm, and indicating sufficient substance; tendons well defined; hair and skin fine.....	3	_____
Temperament: spirited, yet docile.....	2	_____

HEAD AND NECK

Head: not too large, features well defined and regular.....	1	_____
Muzzle: fine, nostrils large; lips thin, even; teeth sound.....	1	_____
Eyes: large, full, bright, and clear.....	1	_____
Forehead: broad and full.....	1	_____
Ears: medium size, pointed; well carried, and not far apart.....	1	_____
Neck: rather long and clean cut, well muscled; crest well developed and nicely arched; throat latch fine; windpipe large; tapering from shoulder to head and head attached at proper angle.....	2	_____

FOREQUARTERS

Shoulders: oblique, long, smooth, and covered with muscle extending into back; withers well finished at the top.....	4	_____
Arms: short, well muscled, elbows lying close to the body.....	2	_____
Fore legs: viewed from in front, a perpendicular line from the point of the shoulder should fall on the center of the knee, cannon, pastern, and foot; from the side, a perpendicular line dropping from the center of the elbow joint should fall on the center of the knee and pastern joint and back of the hoof.....	3	_____
Forearms: well muscled, medium length, wide, and tapering from the elbow to the knee.....	2	_____
Knees: large, clean, wide, straight, and strongly supported.....	1	_____
Cannons: medium, length wide, clean; tendons large, set well back, not tied in below the knees.....	2	_____
Fetlocks: wide, straight, strong, free from puffiness.....	1	_____
Pasterns: strong, of medium length; angle with the ground 45°.....	2	_____
Feet: straight, medium size, even; horn dense; frog large, elastic; bars strong; sole concave; heel wide, high; hoof head large.....	5	_____

BODY

Chest: deep, low; girth large; width of breast in proportion to other parts.....	2	_____
Ribs: long, well sprung.....	4	_____
Back: straight, short, broad, well muscled.....	3	_____
Loins: wide, short, thick, and neatly joined to hips.....	2	_____
Under line: long; flank low.....	1	_____

HINDQUARTERS

Hips: smooth, level, width in proportion to other parts but not prominent.....	2	_____
Croup: long, wide, muscular.....	2	_____
Tail: attached high, well carried, well haired, with straight and not too coarse hair.....	1	_____
Thighs: long, muscular, thick, and wide, well muscled over stifle.....	3	_____
Quarters: heavily muscled.....	1	_____
Hind legs: viewed from behind, a perpendicular line from the point of the buttock should fall on the center of the hock, cannon, pastern, and foot. From the side, a perpendicular line from the hip joint should fall on the center of the foot and divide the gaskin in the middle; and a perpendicular line from the point of the buttock should run parallel with the line of the cannon.....	4	_____
Gaskins, or lower thighs: wide, well muscled.....	1	_____
Hocks: large, strong, clean, and well defined, free from puffiness, coarseness, and curbiness.....	4	_____
Cannons: short, broad, flat and clean, tendons large and set back, not too tight below the hock.....	2	_____
Fetlocks: large, wide, straight, strong, free from puffiness.....	1	_____
Pasterns: strong and of medium length; obliquity not so great as fore pasterns.....	1	_____
Hind feet: straight, medium size, even; smaller and not so round as fore feet; horn dense; frog large, elastic; bars strong; sole concave; heel wide, high.....	4	_____

ACTION

Walk: elastic, quick, balanced; step long.....	4	_____
Trot: rapid, straight, regular, high; should not forge, wing, or roll in front, or go wide or too close behind.....	15	_____
Total.....	100	

SCORE CARD FOR HEAVY MARKET HORSES

Name or number of animal.....
 Age.....
 Market class.....
 Blemishes.....
 Unsoundnesses.....
 Estimated market value.....

GENERAL APPEARANCE	PERFECT SCORE	JUDGE'S SCORE
Height: score according to class.....	1	_____
Weight: score according to class.....	6	_____
Form: according to class, broad, massive, symmetrical.....	5	_____
Condition: carrying a good amount of firm flesh.....	4	_____
Quality: bone moderately heavy, clean, firm, and indicating sufficient substance; tendons well defined; hair and skin fine.....	4	_____
Temperament: quiet, yet energetic.....	3	_____

HEAD AND NECK

Head: medium in size, not coarse.....	1	_____
Muzzle: fine; nostrils large; lips thin, even; teeth sound.....	1	_____
Eyes: large, full, bright, clear.....	1	_____
Forehead: broad and full.....	1	_____
Ears: medium size, pointed, well carried, and not far apart.....	1	_____
Neck: medium length, clean cut, well muscled; tapering from shoulder to head, and head attached at proper angle; crest well developed and nicely arched; throat latch fine; windpipe large.....	2	_____

FOREQUARTERS

Shoulders: oblique, long, smooth, and covered with muscle extending into back; withers well finished at the top.....	3	_____
Arms: short, well muscled, elbow lying close to the body.....	2	_____
Fore legs: viewed from in front, a perpendicular line from the point of the shoulder should fall on the center of the knee, cannon, pastern, and foot; from the side, a perpendicular line dropping from the center of the elbow joint should fall on the center of the knee and pastern joint and back of the hoof.....	3	_____
Forearms: heavily muscled, long, wide, and tapering from the elbow to the knee.....	2	_____
Knees: large, clean, wide, straight, and strongly supported.....	1	_____
Cannons: short, wide, clean; tendons large, set well back, not tied in below the knees.....	2	_____
Fetlocks: wide, straight, strong, free from puffiness.....	1	_____
Pasterns: strong, of medium length; angle with the ground 45 degrees..	2	_____
Feet: straight, medium size, even; horn dense; frog large, elastic; bars strong; sole concave; heel wide, high; hoof head large.....	5	_____

BODY

Chest: deep, low; girth large; width of breast in proportion to other parts	3	_____
Ribs: long, well sprung.....	3	_____
Back: straight, short, broad, well muscled.....	3	_____
Loins: wide, short, thick, and neatly joined to hips.....	2	_____
Under line: long, flank low.....	1	_____

HINDQUARTERS

Hips: smooth, level; width in proportion with other parts, but not prominent.....	2	_____
Croup: long, wide, muscular, not drooping.....	2	_____
Tail: attached high, well carried, well haired, with straight and not too coarse hair.....	1	_____
Thighs: long, muscular, thick, and wide; well muscled over stifle.....	3	_____
Quarters: heavily muscled, deep.....	2	_____
Hind legs: viewed from behind, a perpendicular line from the point of the buttock should fall on the center of the hock, cannon, pastern, and foot; from the side, a perpendicular line from the hip joint should fall on the center of the foot and divide the gaskin in the middle; and a perpendicular line from the point of the buttock should run parallel with the line of the cannon.....	4	_____
Gaskins, or lower thighs: long, wide, well muscled.....	1	_____
Hocks: large, strong, clean, and well defined; free from puffiness, coarse- ness, and curbsiness.....	4	_____
Cannons: medium length, broad, flat, and clean; tendons large and set back, not too light below the hock.....	2	_____
Fetlocks: large, wide, straight, strong, free from puffiness.....	1	_____
Pasterns: strong and of medium length; obliquity not so great as fore pasterns.....	1	_____
Hind feet: straight, medium size, even; smaller and not so round as fore feet; horn dense; frog large, elastic; bars strong; sole concave; heel wide, high.....	4	_____

ACTION

Walk: elastic, quick, balanced; step long.....	6	_____
Trot: rapid, straight, regular, high; should not wing or roll in front or go wide or too close behind.....	4	_____
Total.....	100	_____

joints; this also aids in preventing concussion and makes locomotion possible. When a leg is extended there is a straightening of the angles; and a horse is able to reach the ground with its foot without materially lowering the body. It can be seen in Fig. 1 that angles occur in the front legs between the scapula and the humerus, the humerus and radius, and the cannon and the pastern; in the hind legs, between the ilium and the femur, the tibia and the cannon, and the cannon and the pastern.

The coupling of a horse is commonly described as the distance from the last rib to the ilium, or hip bone, but in reality it is the connection between the last thoracic vertebra and the beginning of the sacrum. An animal that has an objectionably long coupling is too long in the lumbar vertebrae. The last rib, being attached to the rear thoracic vertebra, furnishes the best means available for determining the forward boundary of the coupling.

Muscles consist of bundles of fibers. When the fibers are long and thin they are more elastic and have greater possibility of contraction than when they are short and heavy. Heavy muscles denote power; long, slender ones denote speed. Short muscles are usually found in association with short bones and in regions where the principal function is the transmission of power; long muscles are usually associated with long bones and in regions where the muscles are the source of speed.

The nervous system varies greatly in different individuals and is no less important as a point of study in the judging of horses than the bones and muscles. Its function is to control all action, both voluntary and involuntary. It is through nervous stimulation that an animal is able to relax, contract, and control its muscles. Thus, it may be seen that the degree of stimulation has much to do with the quickness and strength with which a horse may act.

3. Use of Score Cards in Judging of Horses.—As an aid to beginners in the judging of horses, score cards are often used. Such cards are devised for the purpose of familiarizing

the novice with the different parts of a horse and their relative importance as expressed numerically. As soon as the score card has been mastered it should be laid aside.

For the present purpose it is sufficient to give two forms of score cards, namely, one for light horses and one for heavy horses. The term light horses has reference to animals that are used for riding and driving or other pleasure purposes; the term heavy horses refers to animals that are used for drawing heavy loads, such as in teaming and farm work. The score cards given here are based on the market requirements for these two general groups, and are similar to the score cards used at the several agricultural colleges of the United States and Canada.

4. Market Requirements for Horses.—The market value of a horse is rated largely according to its *soundness, conformation, quality, condition, action, age, color, education and disposition*, and *general appearance*. There are certain minor considerations, also, such as *sex* and *breed*, that may affect the value in some cases, but such factors usually have little weight.

5. Soundness is the most important consideration in determining a horse's value. A horse with any disease or alteration of structure on account of disease or accident, that is enfeebled or deranged, or that has any vice that actually interferes with its usefulness and reduces its capability for work is termed *unsound*. Horses are frequently sold at public auction as being *serviceably sound*; that is, they have no defects that make them unfit for the service for which they are sold. They must be good in wind and eyes and must not be lame or sore in any way, but may have blemishes of a minor nature, such as small splints or a spot or streak in the eye that does not affect the sight. Blemishes that detract from the appearance of an animal and lessen its sale value but that do not interfere with its usefulness are not unsoundnesses, although they may be an indication of unsoundness; for instance, skin scars are only blemishes, but they may indicate the presence of spavin, ringbone, or certain other similar unsoundnesses. Some of the unsoundnesses that dis-

qualify a horse for hard service are: broken wind, unsound eyes, ringbones, side bones, large splints, buck knees, and unsound hocks, such as those having curbs, spavins, and large thoroughpins. These unsoundnesses will be discussed later.

6. The **conformation** of a horse should indicate strength and endurance. Strength is denoted chiefly by well-developed muscles and a general symmetry of parts. Endurance is indicated by a deep, capacious chest, good feet and legs, a short, well-muscled back, a deep barrel and deep flanks, and a short coupling. The extent to which muscles indicate strength is determined not only by their size but also by their quality; they should be elastic and pliable in addition to being well developed. Symmetry of parts is necessary for correct proportions. A deep, capacious chest in which there is plenty of room for the vital organs denotes health and a strong constitution; these qualities are the most instrumental in insuring endurance. Because of the fact that a large percentage of the horses that work on paved streets wear out first in the feet, the conformation and quality of these parts are important considerations in the selection of horses for use in the cities; the feet of horses intended for farm use do not receive so much consideration as those of horses for city use, as the feet of farm horses rarely wear out. Likewise, the legs of horses intended for city work are scrutinized more closely than those of horses for farm work, because the concussion in traveling on pavements is much greater than in traveling on soil and consequently the wear is greater. A short, well-muscled back, a deep barrel and deep flanks, and a short coupling indicate good feeding qualities, which, in turn, denote endurance.

Excessive concussion usually produces soreness and disease and therefore shortens the period of usefulness of an animal, and in order that there may be the least concussion when its feet strike the ground, a horse should have oblique shoulders, rather short cannons, and moderately long pasterns. The front pasterns should set at an angle of about 45 degrees with the ground; the hind pasterns should stand at a slightly wider angle with the ground. Buyers discriminate against horses with long,

low pasterns. In Fig. 2 is illustrated the lower part of a horse's leg with a pastern *a* that illustrates this objectionable conformation. A horse that has pasterns of this kind is said to be *coon-footed*.

The width of the hips should be in keeping with the other parts of a horse, but the hips should not be prominent. The croup should be long, well muscled, and not too drooping. A drooping croup, although more objectionable in some classes than in others, is unsightly and detracts from the value of a horse. In Fig. 3 (a) is shown a drooping croup and in (b), a croup of the correct conformation. The tail should be set high, be well haired, and be stylishly carried. The quarters and thighs should be heavily muscled and the hocks large, strong, and clean cut. The head should be of moderate size, the eyes large and mild, and the ears refined, carried erect, and



FIG. 2

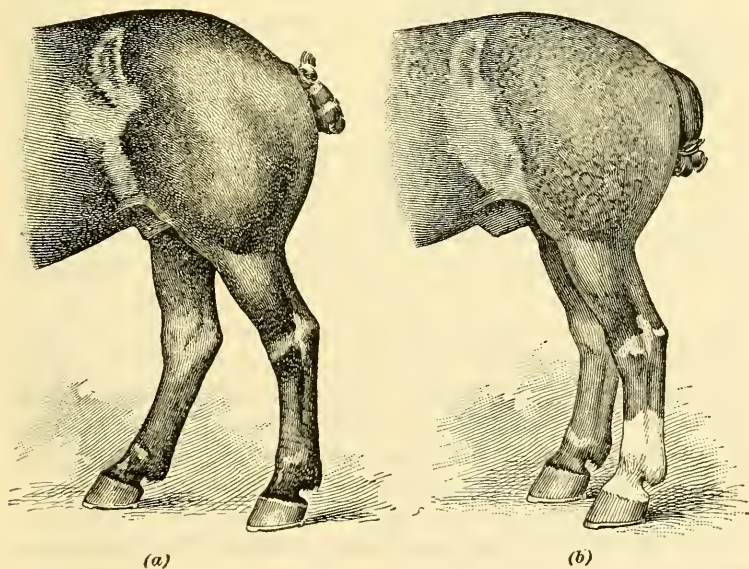


FIG. 3

not set too far apart. A Roman nose, a peculiar conformation of the face that is illustrated in Fig. 4, is not desirable.

7. **Quality** in a horse is of prime importance. As applied to horses, it has reference to the degree of excellence of the bones, skin, hair, and muscles. Its presence is shown by clean-cut features of the head and legs, clean bones, and well-defined tendons; a soft, glove-like skin with fine, silky hair; well-defined muscles, joints, and tendons; and an absence of coarseness. When an animal of quality is exerted the skin shows clearly an intricate network of veins. Coarseness

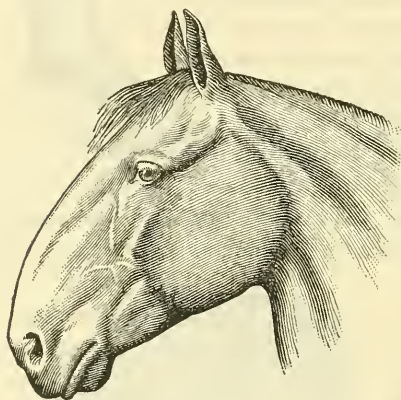


FIG. 4

throughout, especially of hair and skin, is usually associated with soft, spongy bone, which is subject to disease under the strain of hard usage or neglect. The presence or absence of quality is a strong indication of the extent of a horse's endurance.

8. Horses must be in good **condition** in order to bring good prices on the

market; that is, they must have enough flesh to round out their bodies, and a glossy coat of hair to give them a sleek appearance; a good coat of hair that fills the market requirements is often estimated to be worth about \$10. Condition is a more important consideration in heavy horses than in light horses. Careful estimates based on experiments have been made that give the value per pound of a sufficient amount of flesh to put heavy horses in good market condition at from 20 to 25 cents. As the cost of putting flesh on horses need not exceed from 8 to 12 cents per pound, the producer can well afford to fatten his thin horses before selling them.

9. Excellence of **action** is more effective than any other one point in bringing a high price for a horse of the carriage,

road, or saddle classes, but it is not so important in the case of horses of other classes; however, the market requires that all horses have good action. A horse should move its legs and feet in a straight line, picking the front feet well up and carrying them forwards without winging or interfering. By *winging* is meant throwing the feet out or in when traveling. *Interfering* means striking the fetlock or the cannon of one leg with the foot of the opposite leg as it passes; interfering may be done by the hind legs as well as the front. The hind feet should follow in the line of the front feet without interfering, hitching, cross-firing, or forging. By *hitching* is meant taking a longer stride with one hind leg than with the other. By *cross-firing* is meant the striking of a fore foot in traveling with the hind foot of the opposite side. *Forging* is striking a front shoe with the toe of the hind shoe on the same side. The action required for the various classes has already been described in a previous Section.

10. Age is of great importance in determining the value of a horse. The market demand is for horses that are from 4 to 8 years old, the exact age depending on the market class, the degree of maturity, and the soundness of each animal. All horses sell best when they are from 5 to 7 years old, but in the case of classes for which there is a strong demand, a well-matured animal, if in good condition, will be readily taken at less than 5 years of age. Heavy horses mature earlier than light horses and less time is required for their education, consequently they are acceptable to the market at a younger age, and their value, likewise, begins to decrease sooner than that of light horses.

11. Color, as a rule, is not an important market consideration, and all horses with solid colors except white are in good demand. A good animal of any solid color is rarely objected to unless it is by a purchaser who has a special order to fill. More discrimination in color is made in the case of light horses than of heavy horses, for the reason that the latter are used chiefly for utility purposes, and the former are used principally for pleasure purposes. Choice steel-gray, dapple-

gray, and strawberry-roan horses of the draft, eastern-chunk, and wagon-horse classes are in strong demand by firms that regard their teams as an advertisement and want them to attract as much attention as possible. Bay, brown, and chestnut horses sell better in the light-horse classes than those of any other colors, although a well-matched pair of blacks that are suitable for hearse purposes are usually in strong demand. White horses, also, are sometimes used for hearse purposes, but the principal demand is for black animals with no white markings.

12. The **education and disposition** of horses have considerable influence on their market value. Horses of all classes should have kind dispositions, be willing workers, and be well educated for their work. It is readily apparent, however, that a thorough education is much more necessary in some classes than in others. Horses that are expected to show fancy action or gaits must be thoroughly trained for their work; and all light horses should be indifferent to sights and sounds that commonly frighten horses. Heavy horses should be good pullers and be free from bad habits and vices.

13. The **general appearance** of a horse has much to do with its market value. A horse intended for market should be well groomed so that the hair is close to the body and is sleek and glossy. The foretops and legs of market horses should not be clipped, because this gives the impression that the animals are second-hand or stale, that is, not in their prime, and the presence of foretop and feather leaves little doubt as to the animals being fresh from the country. Docking of the tail should not be practiced by the producer, as that is the business of dealers who cater to a certain class of trade.

14. The **sex** of a horse has little effect, as a rule, on its market value, although for city use, geldings sell better than mares, and the reverse condition is true for country use. Mares are not desirable in the city, because there is a likelihood of them being in foal, and the exhibition of heat is objectionable; but for country use mares are preferred, because in many cases farmers buy horses with the expectation of breeding them.

15. The **breed** to which a horse belongs has little effect on its market value, provided the horse is a good individual. Some buyers discriminate against the animals of certain breeds on the ground that they are more subject to ills and unsoundnesses than those of other breeds. However, in general, the breed to which a horse belongs has little influence in determining its value.

PROCEDURE IN JUDGING OF HORSES

GENERAL EXAMINATION

16. In the judging of horses, it is advisable to have a definite system of procedure. The system followed by most judges is first to make an examination of an animal in a general way and then to make a thorough and detailed examination of each part. In a general examination of an animal the judge should study its conformation, quality, style, action, and temperament.

17. **Judging of Conformation.**—Usually the first point that is considered in a general examination of a horse is its conformation. By conformation is meant the form, structure, outline, or general arrangement of the parts. The conformation of a horse can best be studied from a point several paces away from the animal; the judge should stand first at one side, then at the front, then at the other side, and finally at the rear. From the side, the judge can observe the top and bottom lines and study the general balance of the horse. The top line—the back from the top of the shoulders to the root of the tail—should be relatively straight and short; the under line—the line of the body from the fore legs to the hind legs—should be long with a low flank. The judge can observe also from the side the length and contour of the neck, the carriage of the head, the slope of the shoulders, the depth of the body, the filling in of the fore flanks, the length of the coupling, the length and levelness of the croup, the set of the legs, and the muscular development of the forearms and gaskins. The

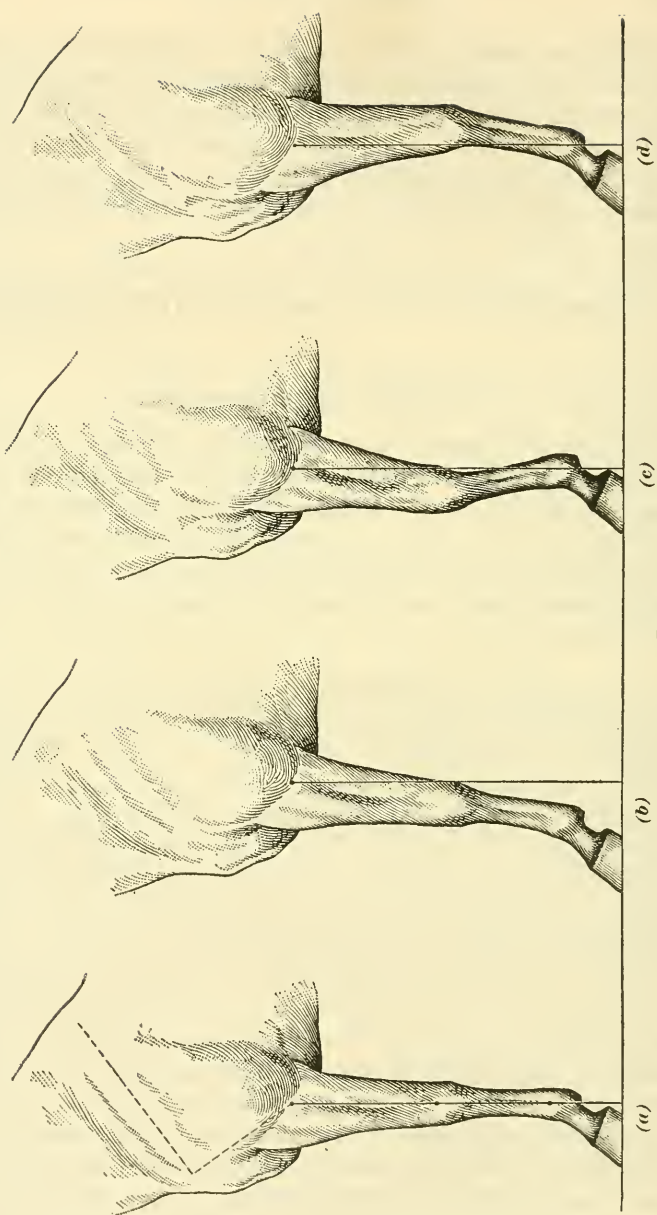


FIG. 5

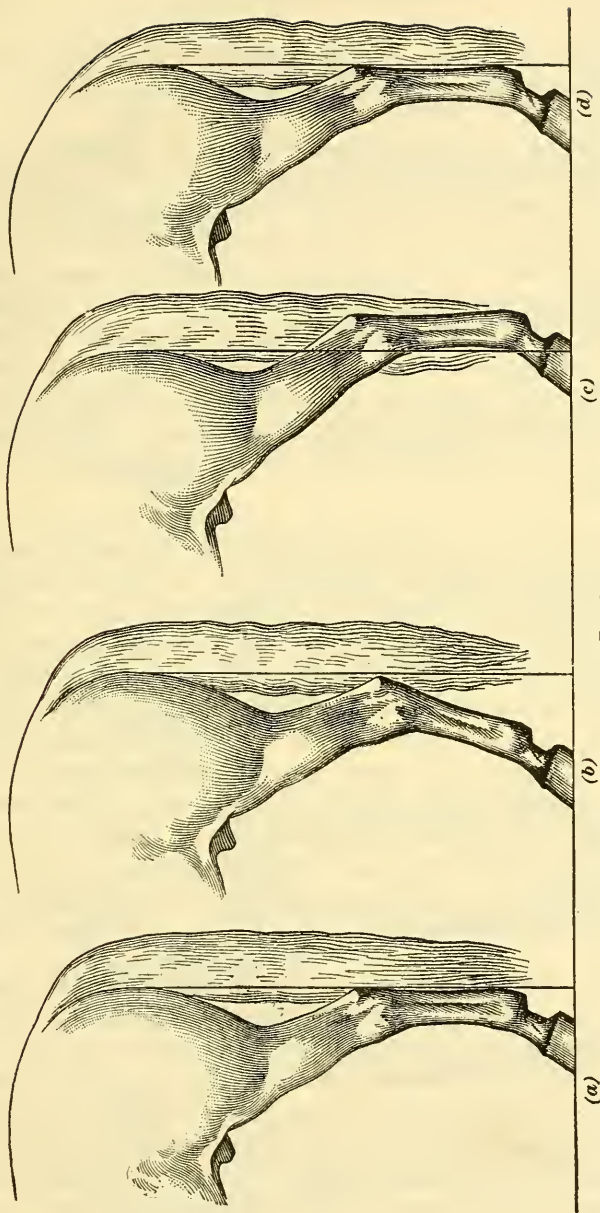


FIG. 6

requirements for these points are given in the score cards for light and heavy horses and are explained later.

18. In Fig. 5 (a) is shown a side view of the correct position of the fore legs of a horse when it is standing. A plumb line dropped from the center of the elbow joint bisects the knee, cannon, and fetlock, and strikes the ground at the heel. In (b), the foot extends too far forwards; this may be a natural position or it may be due to soreness in the feet. Occasionally, a horse is found that stands with the fore feet too far back, that is, just opposite of the position shown in (b). The position shown in (c) is common in horses; and an animal that has the legs in this position is said to be *buck-kneed* or *knee sprung*. A horse with the legs in position shown in (d) is said to be *calf-kneed*.

19. In Fig. 6 (a) is shown a side view of the correct position of the hind legs of a horse when standing. It can be seen that the hind cannons are perpendicular, and if a straightedge were placed at the rear of the cannons, as indicated by the line, it would strike the point of the buttocks. In (b), (c), and (d) are illustrated undesirable conformations of the hind legs. Hocks such as those shown in (b) are known as *sickle hocks*, and are predisposed to curbs. In the position shown in (c) the legs are set back too far. Although the position shown in (d) fills the requirements of having the cannons and the point of the buttock on a perpendicular line, the croup is too short and drooping and hence gives the legs a poor set; a horse with such a conformation would have a very short stride.

20. A horse that is correctly proportioned should be longer from the rear of the loin to the point of the buttock than the total length of back and loin. The hind flank should be well let down and deep; however, the different classes vary somewhat in this respect, draft horses being relatively deeper in the flank than light horses. The head should be attached to the neck in such a way as to give a poise of dignity; the neck should be elevated from the shoulders and have a good crest development, although this varies in different classes.

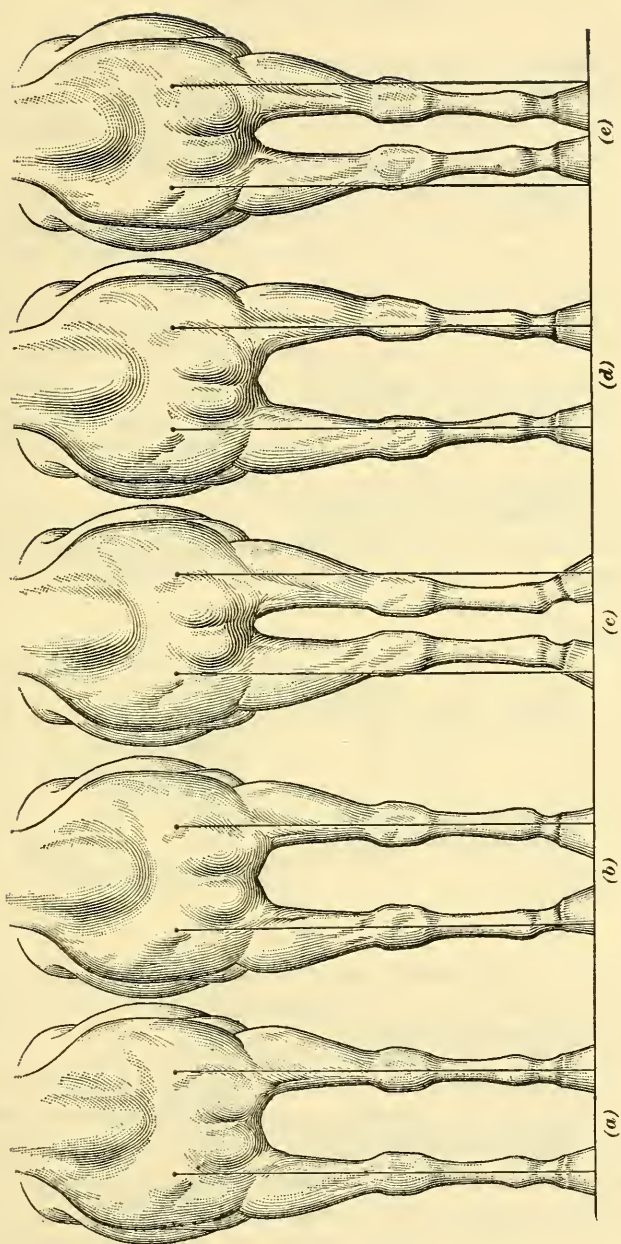


FIG. 7

21. Having completed the inspection from the side, the judge should next step to the front of the animal. From this view he can scrutinize the general bearing, the proportion of parts, the straightness of the fore legs, the width of the chest, and the spring of the ribs.

From the front the fore legs should appear as illustrated in Fig. 7 (a). The toes should point straight forwards, turning neither in nor out, and a plumb line dropped from the point of the shoulder should bisect the knee, cannon, fetlock, and toe. In (b), (c) (d), and (e) are shown conformations that are frequently found, and all of which are undesirable. A horse with the fore legs in the position shown in (b) is almost certain to wing out, or paddle, when moving; one with the fore-legs as shown in (c) will likely interfere.

The ribs should be long and well sprung, arching out well from the spinal column and carrying their curvature all the way down. If a cross-section were made at the rear of the

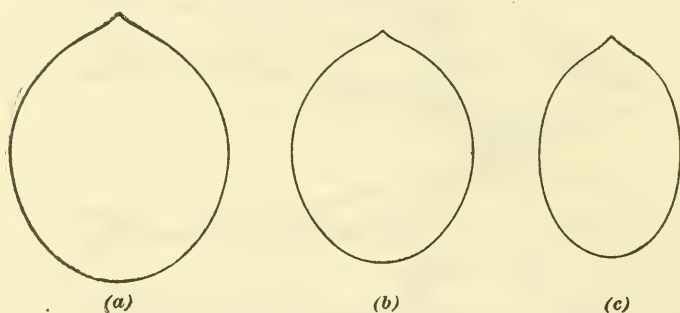


FIG. 8

withers the outline should appear as shown in Fig. 8, (a) being that of a typical drafter, (b) that of a coach horse, and (c) that of a road or a saddle horse.

22. Passing from the front of the animal, the judge should next take his position at the side opposite the one from which the horse was first viewed, and make a similar inspection to that of the first position. He should then proceed to the rear of the horse. From the rear it is possible to observe the spring of the ribs, the width of the barrel, the width and muscular

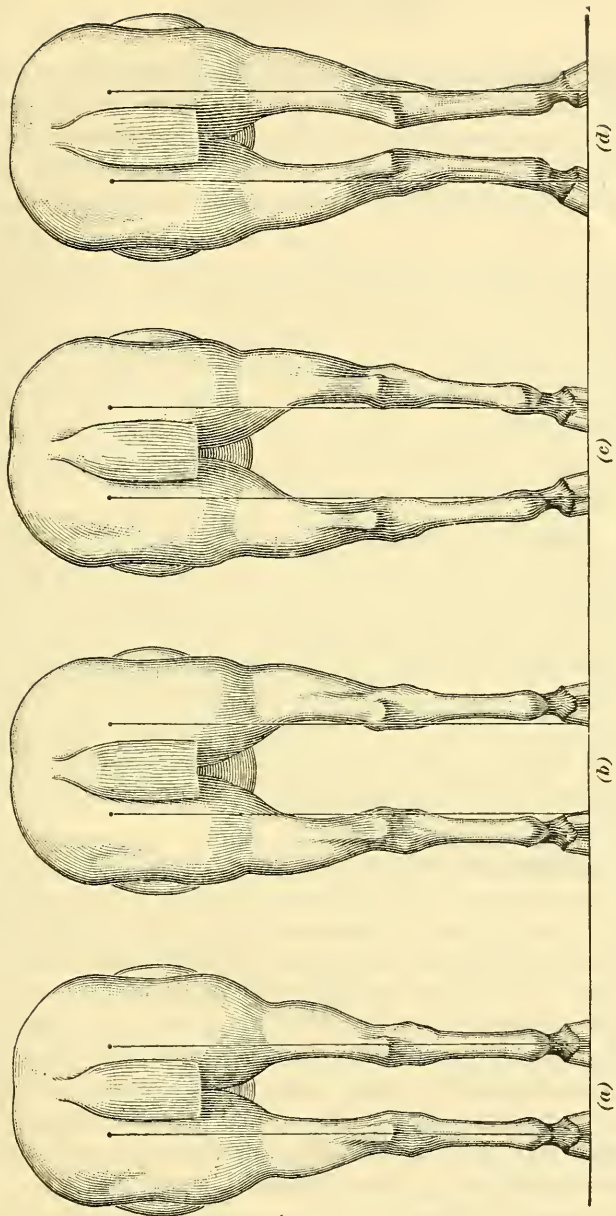


FIG. 9

development of the croup and thighs, the levelness of the hips, and the position of the hind legs; by raising the tail the judge can observe the muscular development of the quarters and the nature of the hocks. The proper conformation of all of these parts is described in the score cards for light and heavy horses.

23. In Fig. 9 (a) is shown a rear view of the correct position of the hind legs of a horse when standing. A plumb line dropped from the point of the buttock to the ground bisects the hock, cannon, and foot. The positions shown in (b), (c), and (d) are variations from the correct conformation and are objectionable. In (b), the legs are set too wide apart; in (c), they are bowed outwards, legs of this conformation being spoken of as too open at the hocks; in (d), the legs turn inwards, legs of this conformation being said to be *cow-hocked*.

24. Judging of Quality.—After a judge has studied the conformation of a horse he should next examine it for quality. The degree of quality of a horse may be ascertained by passing the hand over its body, particularly the legs, and noting the fineness of hair and skin, the cleanness and firmness of bone, the definition of the tendons, and the distinctness of the lines showing the divisions of the muscles. Another index to the degree of quality is the conformation of the joints of the legs; in an animal of quality, these should be clearly defined and hard and should not show any fulness.

25. Judging of Style.—An important point to note in a general examination of a horse is its style. Style may be defined as an elegance of form and a symmetry and blending of all parts, both when an animal is standing and when it is in action. All horses should have style, as it enhances their commercial value, but style is not the same in all classes of animals. For instance, style that is considered appropriate for a typical roadster is wholly inappropriate for a park horse. Style is judged by studying the animal at rest and in action. The judge should note the manner in which the head and tail are carried and the grace and balance of the action.

26. Judging of Action.—All horses should have good action with reference to sureness of foot, effectiveness in covering

distance, and lightness; the latter point is important, because horses with light action suffer less from concussion than those with heavy action. The walk should be with a long, firm, quick step, the horse flashing the soles of the feet up to view, and raising its feet high enough to clear any obstacle over which it may be passing.

In judging of action, the judge should observe a horse from the front as it comes toward him, to note whether there is any winging in or out of the front feet, and the manner in which the knees are carried forwards. As the horse approaches, the judge should step to the side and observe the length of the stride, the flexion of the knee and hock, and the levelness of the action. A horse is said not to be level in its action when it is unbalanced, that is, when it lifts the feet relatively higher in front than behind, or vice versa, or is uneven in its stride. Some horses have difficulty in getting their front feet out of the way of their hind ones, and others have a short stride in the hind feet. In observing the levelness of action the judge should not stand too close to the horse, as this point can best be observed at some distance to the side.

As the horse passes, the judge should step behind it and observe the action from the rear. From this position he can see the manner in which the hind feet are carried. The hind feet should be carried forwards in line with the front ones and neither close enough together to cause interfering, or extremely wide apart; the hocks should be well flexed and well directed without any unusual widening, and the soles of the feet made plainly visible at every step.

A horse should strike the ground with the heel slightly before it does with the toe, and there should be no hesitancy in allowing the foot to strike the ground; a hesitancy in this is an indication of soreness. Soreness of feet or of shoulders results in a shortening of the stride and is usually more noticeable at the trot than at the walk. In walking rapidly, a horse should place the hind feet in advance of the tracks of the front ones, although this is not the case at a slow walk. Horses with pigeon toes usually wing out; those with a conformation known as *splay-footed* (toes turned out) usually wing in and

frequently interfere. There should be no hitching, scalping (striking the hind pastern or shin against the front toe as the hind foot is extended), speedy cutting (striking the inside of the hind cannon or pastern against the front foot as the hind foot is brought forward and passes on the outside of the front one), or cross-firing, which occurs only with pacers.

27. Judging of Temperament.—An important point to consider in the judging of horses is **temperament**. A horse that is otherwise valuable may be unsafe and unreliable on account of having an undesirable temperament. The most distinctive temperaments in horses are the nervous, the lymphatic, the sanguine, the bilious, and the erratic; these, with modifications and combinations, make a great variety. Sometimes it is difficult to judge of a horse's temperament in a general examination, but, as a rule, if the horse is thoroughly exercised to show its action a good idea may be had of its temperament.

The term *nervous temperament* is applied to a temperament in which the nervous system is developed in proportion to the muscular system and hence able to stimulate the latter to the performance of work. A horse of nervous temperament exhibits the fact by being a willing worker and is not lacking in nervous control. It should be noted that the term nervous temperament does not apply to temperaments that are excitable or lacking in nervous control although it is sometimes misapplied in this sense. In contrast to the nervous temperament is the *lymphatic temperament*, a condition in which the nervous system is not developed in proportion to the muscular system. A horse of this temperament usually lacks zest and spirit in its work, a condition that is probably due to insufficient nervous stimulation; a horse of lymphatic temperament is said to be lazy. A *sanguine temperament* is one resulting from apparently perfect health, and finds expression in kindness of disposition and a willingness to work. A horse with a sanguine temperament has marked vitality and energy, and shows no irritability or lack of nervous control. In contrast to the sanguine temperament is the *bilious temperament*, which

reflects itself in an ill temper, largely due to a poor nutritive condition of the body, often caused by indigestion. An *erratic temperament* results from irritating a nervous temperament or never teaching the animal to control it. Erratic temperament often exhibits itself in some form of vice or in uncontrollable temper.

DETAILED EXAMINATION

28. A judge usually has two objects in view in making a detailed examination of a horse. He is desirous, first, of ascertaining the merits of the different parts as to conformation and quality, and, second, of determining whether any unsoundness exists. Although one detailed examination is usually sufficient to cover both points, it is desirable, for the sake of clearness, to discuss the subject as if two examinations were made, that is, as if conformation and quality of the parts were judged at one examination and the soundness at another. The examination for unsoundness will be discussed last.

In beginning a detailed study of a horse it is a good plan to adopt a regular system of examination, in order that no points may be overlooked. Most judges start at the head and neck and pass, in turn, to the forequarters, the body, and the hind-quarters. The various parts of these regions are examined in detail, and then the regions as a whole are studied.

29. **Examination of the Head and Neck.**—The head is an important point of study in judging a horse, because its shape gives expression to the countenance, which is usually indicative of the degree of intelligence and the nature of the disposition. The head should be of moderate size, with clean-cut features, and be in proper proportion to the rest of the body. A profile view should show a comparatively heavy jaw that tapers to a refined but not delicate muzzle. The forehead should be broad and high, indicating intelligence, and should not recline or protrude; a reclining forehead indicates timidity and one that protrudes indicates a headstrong and stubborn disposition. The face line from the poll to the end of the nose should be comparatively straight as viewed from the side; however,

horses of different breeds and different sexes vary somewhat in this respect. As a rule, stallions more often have Roman noses and mares are inclined to have dished faces. The face line should incline at an angle of about 45 degrees.

The eyes should be large and set so that they are neither sunken nor protuding, correctly proportioned between the poll and the end of the muzzle; and placid in expression, which is indicative of a sanguine temperament. When the eyes are

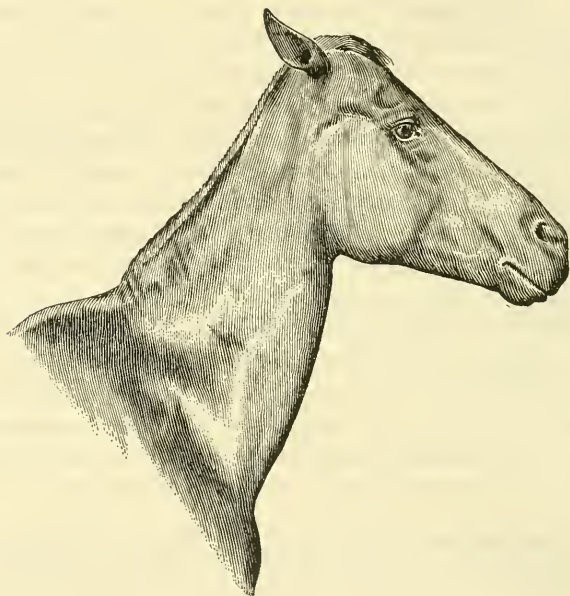


FIG. 10

properly placed, a horse is able to see to the front and to the side without turning its head. The face should be clean cut and free of all meatiness, this condition indicating quality; the nostrils should be large, which is indicative of good wind, and when they are distended they should be nearly circular in form; the lips should be broad, which indicates good feeding qualities. The head should be wide between the angle of the jaw bones; this helps to give shape and finish, and allows plenty of room for the windpipe, throat, and larynx. The ears

should be active, refined, pointed, carried erect, and not set too far apart. The ears are expressive of many qualities about the horse. Lop ears indicate laziness or lassitude, and ears that are carried erect but motionless are indicative of defective hearing or total deafness. If one ear is carried forwards and the other one back, with an occasional shifting of these positions, it is a good plan to inspect the eyes; these are likely to be found defective. Extreme soreness of one or both front feet is usually shown by an abnormal carriage of the ears.

The neck should be of good length and in proportion to the body; it should be deep where it joins the shoulders, gradually tapering toward the head, which should be neatly attached. The throat latch should be neatly turned and free from coarseness. The crest should be well developed, with a gradual swell from the withers to the poll and no tendency toward a depression in front of the withers, a conformation known as *ewe neck*. A neck of this conformation is illustrated in Fig. 10.

30. Examination of the Forequarters.—Passing from the head and neck, the judge should next study the forequarters. The shoulders should be long, obliquely set, and neatly finished at the withers. Oblique shoulders usually accompany a short back. The shoulders should be more obliquely set in light horses than in draft horses, as obliquity of the shoulders gives freedom of movement. The arms should be heavily muscled and in draft horses should lie somewhat more horizontal than in light horses. The elbows should lie near the body, but not so close as to interfere with free, easy movement; ordinarily, there should be about room enough to insert the hand. The forearms should be heavily muscled near the body, and the length should be equal to that from the knee to the ground; the knee should be large, well defined, and indicative of strength; and the tendons should stand back well from the bone and not be tied in below the knee, which is indicative of weakness. The cannons should be wide and rather flat as viewed from the side, the width being attained by the distance the tendons stand back from the bones. Horses of different breeds vary greatly in this respect, the cannons of some being nearly round

and those of others somewhat flat. The cannons should be clean, smooth, and free from splints and other blemishes.

The fetlocks should be broad, as viewed from the side, and free from puffiness. The pasterns should be moderately long and obliquely set, about 45 degrees being considered best. The feet should be large, with dense, waxy horn, indicating strength, and there should be no cracks or evidence of weakness or brittleness; the heels should be wide and in height about one-half the length of the toe; the frogs should be large and elastic. Dark-colored horn is preferred to light because it is usually tougher. The pasterns and feet should be neatly joined, blending into each other without any undue prominence at the hoof head or coronet, which should be large. The line of the toe should carry out the same direction as that of the pastern when properly set. The feet should gradually spread from the coronet, increasing in size toward the bottom. The front feet are larger and more circular in shape than the hind ones, which are longer and not so broad. The soles should be convex and the heels high and wide, to give ample room for large frogs. The walls should be heavy and the bars strong; these should not be pared out at the time of shoeing.

31. Examination of the Body.—After judging the forequarters the judge should proceed to the body. The withers should be well muscled and well finished at the top. The chest should be deep and capacious, indicating well-developed vital organs, and should have good length and width—broad from elbow to elbow. The floor of the chest should be well let down between the front legs and extend forwards, thus giving a prominent breast. The ribs should be long, well sprung, and close together. The back should be straight, short, broad, and heavily muscled, and the loins wide, short, and thick. The bottom line should be long, with a flank that is full and well let down but of slightly less depth than the rest of the body.

32. Examination of the Hindquarters.—The last region to be considered in a detailed examination of a horse is the hindquarters. The hindquarters include the hips, croup, tail, thighs, quarters, gaskins, hocks, hind cannons, hind fetlocks,

hind pasterns, and hind feet. The croup should be long, wide, and muscular and carry its width out well to the point of the buttocks; it should not be too drooping, as a drooping croup is unsightly and not conducive to good action. The hips, which are prominences of the pelvis for the attachment of muscles, should be broad but not prominent and in proportion to the rest of the body; broad, high hips give a ragged and unkempt appearance to a horse. The thighs and quarters should be deep, well developed, and heavily muscled; the quarters should not be split too high. The gaskins should be short in draft horses but a little longer in light horses; they should taper in width from above to the hocks. The hocks should be sound, free from puffiness, and long, with more width at the top than at the bottom, as viewed from the side. The hind cannons should be comparatively short, broad, and smooth, and when viewed from the side should have as much width just beneath the hock as near the fetlock. The fetlock should be wide, straight, and strong. The hind pasterns should be strong and sloping; it is not necessary that they be as sloping as the front pasterns, but they should have no tendency toward straightness. The hind feet should be as described for the front feet.

EXAMINATION FOR UNSOUNDNESS

33. In making an examination for unsoundness it should be the purpose of a judge merely to ascertain whether an unsoundness exists; if any unsoundness is found it is not necessary for the judge to determine its cause. As a rule, the common unsoundness can be readily detected after a little practice, although, in some cases, the skill of a competent veterinarian is taxed in determining whether or not a particular condition is an unsoundness or likely to result in an unsoundness. In order for a person to become accurate in detecting unsoundness, however, it is necessary that he have a knowledge of the normal condition of the parts likely to be affected. This knowledge can best be secured by observing the conformation and performance of different animals.

34. Preliminary Examination in the Barn.—Some horse dealers practice trickery and deception to mislead a prospective customer, and for this reason it is a good plan to see a horse in its stall, if possible, when the owner is not present. Unless the horse can be seen unmolested in the stall, some conditions may exist that may never be discovered until too late for the knowledge to be of any value. All appliances and devices used for correcting vices and bad habits, the position of the horse's legs, and the manner in which it stands in the stall should be observed. If most of the weight in front is always borne on one foot and the other foot is extended forwards, it suggests soreness or lameness in the extended foot or leg; if the position of the legs is changed, first one being forwards and then the other, there may be soreness in both. The position of the hind legs is not so indicative of an affection, as it is natural for a horse to rest one of the hind legs by flexing it and bearing the weight on the toe. If it is observed that a horse rests only one of the hind legs and not the other, the indications are that something may be wrong with the hock of the leg that is rested—likely it may have a spavin.

Weaving, that is, continually swaying back and forth in the stall, is a vice and also an unsoundness. The continual exertion fatigues a horse and renders it unfit for hard service. If weaving is not detected in the stall, the chances are against its being discovered in time to protect the purchaser.

The condition of the manger and wall in front of a horse should be noted for signs of *cribbing*. A horse that cribs usually takes hold of some object with its teeth, such as the edge of the manger, and draws in wind; it may crib by simply placing the muzzle against the wall or by taking hold of the halter strap, or even without holding or touching anything. Cribbing may be detected also by the condition of the teeth, particularly the way in which they have been worn; the teeth can be examined after the horse is taken from the stall. To prevent cribbing, a strap is sometimes buckled rather tightly around the horse's neck near the head. The presence of such a strap or its marks on the hair where it has been worn should be readily interpreted as indicating that the horse is a cribber.

The way in which the horse lifts its hind feet as it is made to stand from one side of the stall to the other should be observed, the judge noting evidence of string halt, a convulsive flexing of the hock. When the horse is backed out of the stall it should be noted whether or not the hind feet are picked up or dragged, and the manner of handling the front feet. A horse that is subject to cramps drags the hind feet or may bring one foot up with a jerk; if the horse is sore or lame in the shoulders, the front feet will be dragged instead of being flexed.

The eyes should be examined as the horse is taken from the stall; the best place for doing this is in a doorway facing an open space, but not in direct sunlight. The eyes should be bright and clear, and free from a bluish or milky color, which is indicative of disease. If the vision is tested by moving something back and forth in front of the eyes, an object should be used that will not create a perceptible air current, which would cause blinking. In applying such a test the judge should stand at the horse's shoulder so that no movement save that of the object may be seen by the animal.

The teeth should also be examined at this time, the judge noting the manner in which they are worn and the age of the horse; the estimation of age is explained later. If the outside edges of the incisors are worn round or broken off, it is a good indication that the horse is a cribber. A parrot mouth—one in which the upper jaw is longer than the lower—or an under-shot mouth—one in which the lower jaw is longer than the upper—is a malformation and may or may not constitute an unsoundness, depending on the degree of the malformation. If the upper and lower teeth come together close enough that the horse can bite grass and shell corn, he is practically as good for service as if he did not have the malformation, and therefore would be considered sound. The bars of the jaw—the region where the bridle bit rests—and the tongue should also be noted to see whether they are smooth and in perfect condition. If the bars or the tongue are lacerated or the corners of the mouth are worn and calloused, it may indicate that the horse is a hard mouthed or foolish animal, that it is

of erratic temperament, that it is a chronic lugger at the bit, or that the bit is too severe. The lining of the nostrils should be noted; if the horse is in health this will be of a pale pink color. Any variation from this condition such as a mottled, pale, or congested lining or an unusual discharge should be considered with suspicion.

35. General Examination Outside the Barn.—After a preliminary examination of a horse has been made in the barn, the animal should be examined thoroughly outdoors in a good light, the horse being stood on level ground in a normal position. At first the judge should stand a few steps away and take a general survey of the animal from a number of different angles. In this general survey the unsoundness that can usually be easily seen, such as fistulous withers, sweeny, shoe boils, large splints, side bones, curbs, spavins, buck knees, etc., should be noted if present; these are explained later. If the general examination is carefully made the judge should have a good idea of the soundness of the animal before proceeding with the detailed examination.

36. Examination of the Head and Neck.—In making a detailed examination for unsoundness, a judge should follow some definite system. It is a good plan to begin at the head and neck and examine, in turn, the forequarters, the body, and the hindquarters. Starting with the head, the judge should note both sides of the face for scars of trephining for the removal of molar teeth. Although these scars do not necessarily indicate an unsoundness, they do indicate that the teeth have been in bad condition, probably through decay. The breath of the horse should be noted to ascertain whether it has a bad odor, which is often indicative of decaying teeth. The hand should be carefully passed over the poll from behind the ears to ascertain whether there is any enlargement, scars, tenderness, or a fistulous condition called *poll evil*. Poll evil is evidenced by running sores, and always constitutes an unsoundness.

37. Examination of the Forequarters.—In an examination of the forequarters the judge should look for *fistula* at the

withers, *sweeny* of the shoulder muscles, *shoe boils* on the points of the elbows, *faulty conformation* of the knees, *splints* on the cannon bones, *bowed tendons* back of the cannon bones, *wind galls* at the fetlocks, *ringbones* on the pastern bones, *side bones* at the sides of the coffin bones, and *laminitis* or *founder*, *thrush*, *contracted heels*, and *quarter cracks* and *sand cracks* in the feet.

Fistula is manifested by a running sore in the region of the withers; it may be caused by a badly fitting collar, a bruise, a faulty conformation of the withers, or various other causes. Fistula, like poll evil, always constitutes an unsoundness. If fistula has entirely healed and the muscles have assumed their normal size and shape, it is only a blemish; however, because of the tenderness of the parts, the animal is susceptible for a time to a return of the trouble and may again become unsound.

A **shoulder sweeny** is a depression over the shoulder blade due to a wasting away, or atrophy, of the muscles. It usually causes more or less lameness and constitutes an unsoundness. Some horses have heavier muscles over the spine of the shoulder blade than others, consequently it may be necessary to compare the right shoulder with the left in order to determine whether there has been a slight atrophy.

A **shoe boil** is a bruise at the point of the elbow that results in an abscess; it is caused by an animal lying on one of its fore feet in such a way that the heel of the shoe strikes the elbow.

Faulty conformation of the knees may or may not be an unsoundness, and it is necessary to use discretion in deciding this point. Buck knees, which are knees that are bent forwards when the animal is standing, are congenital and should not be confused with sprung knees, which are knees that are bent forwards also but which are acquired after birth, due to a relaxation of the extensor muscles. Sprung knees are much more serious than buck knees and are always an unsoundness.

Splints are tumorous bony growths on the cannon bone, occurring most often on the front legs and usually on the inside of the legs, although they may occur on the outside as well. Fig. 11 shows splints *a* and *b* on the fore legs. Whether or not a splint is an unsoundness depends on its location and

size. If it causes lameness it is clearly an unsoundness, but if not it is usually considered as a blemish. A high splint, such as that shown at *b*, is usually more serious than a low splint, and a large splint is more serious than a small one.

A **bowed tendon** is an enlarged tendon at the back of a cannon bone, due to an injury or sprain, and is an unsoundness. It may occur on either the front or the hind legs. In Fig. 12 is illustrated wind galls *a*, and a bowed tendon *b* on the front legs.

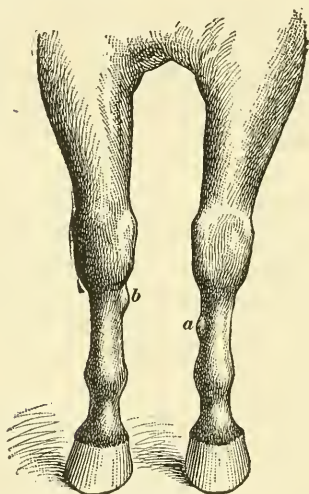


FIG. 11

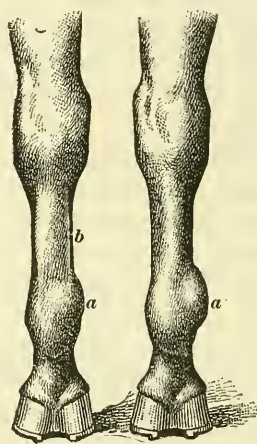


FIG. 12

A **wind gall** is a puffiness about the fetlock joints on either the front or the hind legs. It is considered only a blemish when the enlargement is slight, but when it is large so that it interferes with the usefulness of the animal it is considered an unsoundness.

A **ringbone** is a tumorous bony growth that causes an enlargement on either the upper or the lower pastern bone and is always considered an unsoundness.

Side bones are ossified lateral cartilages that attach themselves to the wings of the coffin bone; they always constitute an unsoundness. They most often occur on the front feet, and more often on heavy horses than on light ones. When the

lateral cartilage ossifies it usually becomes enlarged and if the coronet is free from long hair the outline of the cartilage can usually be seen, although a manipulation of the hand is required to determine the state of its development. Unless it is hard and perfectly rigid so that it cannot be moved laterally, indicating that it is firmly joined to the coffin bone, it has not reached the state of a side bone, but as a matter of fact, if it has become enlarged the market usually considers it an unsoundness. In Fig. 13 is illustrated a ringbone *a* and a side bone *b* on the fore legs.

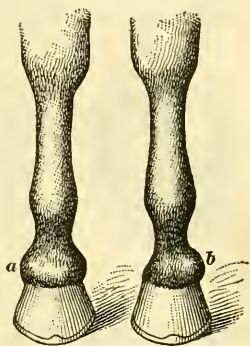


FIG. 13

Laminitis, commonly called *founder*, is an inflammation of the sensitive laminæ of the feet that causes lameness, and always constitutes an unsoundness. It may be due to over-feeding on grain, to giving too much water when the horse is hot, to hard driving, or to paring the sole of the foot too thin and allowing the sole to drop. Opinions may differ as to whether or not slight inflammation and tenderness exists. Founder in an advanced stage is illustrated in Fig. 14 (*a*) and (*b*).

Thrush is a diseased condition of the sole of the foot, occurring either around the margin of the frog or in the cleft, and invariably makes its presence known by a disagreeable odor. It is not usually considered an unsoundness unless it has reached such a state as to cause lameness.

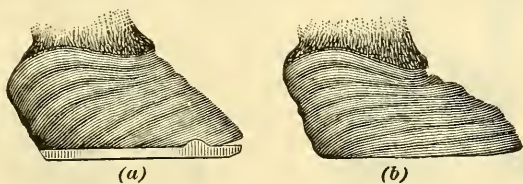


FIG. 14

Contracted heels are not necessarily an unsoundness, although their presence may indicate that unsoundness is likely to occur.

Fig. 15 (a) shows contracted heels; (b) shows heels that are desirable.

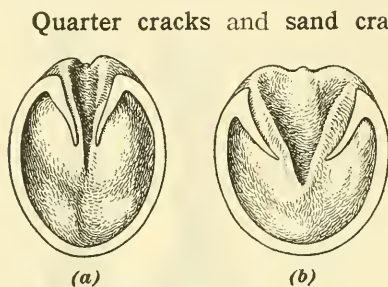


FIG. 15

Quarter cracks and **sand cracks**, which are splits in the hoof, are unsoundnesses when they cause lameness. A quarter crack is one that begins at the coronet in the quarter of the hoof and extends downwards. A sand crack is one that begins at the bottom of the hoof, usually in the middle,

and extends upwards. Fig. 16 (a) shows a quarter crack and (b) a sand crack.

38. Examination of the Body.—The examination of the body can be briefly made, as there are but few unsoundnesses that manifest themselves in this region. The loins should be examined for soreness or weakness. If no soreness or weakness is present the animal will respond to the touch, but if either of these troubles exist the muscles will be held rigid when they are pinched. A weak loin may be detected also by raising the horse's tail; if the loin is weak, little resistance will be encountered. The movement of the flanks as the horse exhales should be observed for signs of heaves. If the horse has heaves there will be a sort of double action. Heaves always constitutes an unsoundness.

39. Examination of the Hindquarters.—The unsoundnesses that pertain to the hindquarters are: *hipped condition*,

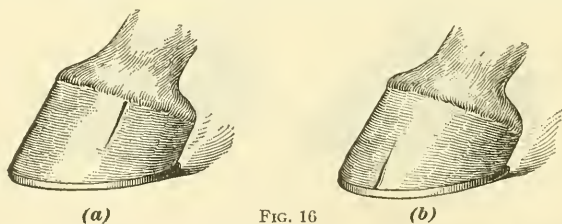


FIG. 16

hip sweeny, *dislocated patella*, *bone spavin*, *bog spavin*, *thorough-pin*, *curb*, *capped hock*, *salanders*, *Michigan pad*, and *grease*.

By a **hipped condition** is meant that the point of the ilium has been broken off or injured in such a way that one hip appears lower than the other. Commercially, it is considered an unsoundness; however, if lameness is not present it may not interfere with a horse's service.

Hip sweeny is an atrophy of the hip muscles that causes a depression on one side of the rump.

A **dislocation of the patella** is manifested, of course, in the region of the stifle. As long as the patella is dislocated the horse is unable to carry the leg forwards and when moved will likely go on three legs, dragging the affected leg on the toe; or there may be a dislocation and return of the patella at almost every step. Such a condition is more frequent in young horses than in old ones, and sometimes is brought on by weakness following debilitating ailments.

Bone spavin, bog spavin, thoroughpin, curb, and capped hock are unsoundness that may be found in the hocks. A **bone spavin** is a tumorous, bony growth that usually occurs on the front and angle of the hock at the upper end of the cannon bone, although it may occur on the outside as well. It usually involves the small bones forming the hock joint as well as the cannon bone and causes an enlargement that is readily detected; however, cases occur of *occult*, or *blind spavin*, that is, spavin that is not visible and only the symptoms of spavin are present. The natural conformation of some hocks is coarse, and in this case it is sometimes difficult to determine, if there is no lameness, whether a slight enlargement is natural or is abnormal on account of a diseased condition. Bone spavin always causes more or less lameness during its development, due to the articular surfaces becoming disorganized. It impedes the flexing of the hock, and the step is usually shortened and the weight of the

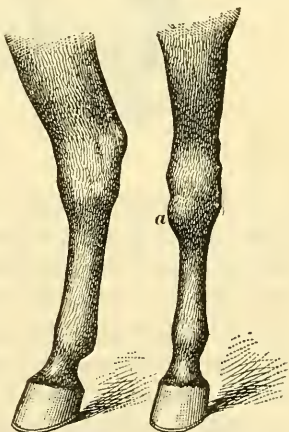


FIG. 17

body is quickly displaced from the affected limb. A bone spavin *a* is illustrated in Fig. 17.

A **bog spavin** occurs on the front inner side of the hock and is a similar condition to a thoroughpin, the only difference being in the location. A **thoroughpin** is a soft enlargement that occurs in the web of the hock between the point of the hock and the main leg bone. It is an enlarged or distended bursa filled with synovia, or joint fluid, and may be apparent on either the inside or the outside of the hock or extend through the web from the outside to the inside. When pressed on

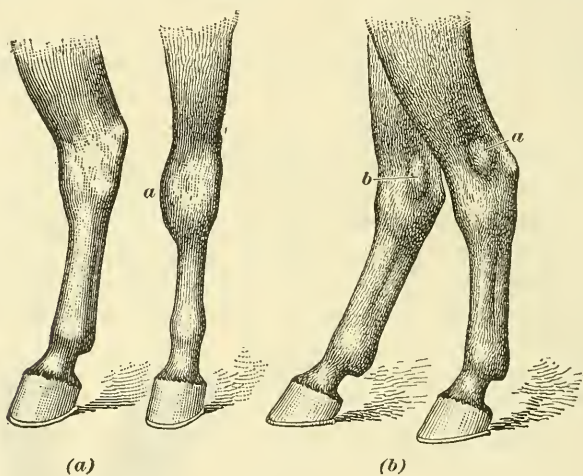


FIG. 18

from either inside or outside it will show on the opposite side. Large thoroughpins and bog spavins constitute unsoundnesses. Heavy horses are more subject to these disorders than are light ones, although the condition is as serious for one as it is for the other. Fig. 18 (*a*) shows a bog spavin *a*; (*b*) shows a thoroughpin *a* as seen from the outside of the leg, and a thoroughpin *b* as seen from the inside.

A **curb** is a hard swelling or bulging at the back side of the hock joint, due to an injury or sprain of a ligament. Legally it always constitutes an unsoundness, though where it is small and on a well-formed hock it may or may not interfere with

the service of the horse. A rounding or sickle hock is more subject to curb than one whose posterior side is perfectly straight. A curb is illustrated at *a* in Fig. 19.

A **capped hock** is the result of an injury bruising the bursa at the point of the hock, and does not ordinarily interfere with the horse's action or ability to work, unless it involves the synovial sac, which intervenes between the tendon and the point of the bone where the one passes over the other. Only in rare cases, such as when there is inflammation and swelling that is painful to the animal, is a capped hock considered an unsoundness. A capped hock is shown in Fig. 20.

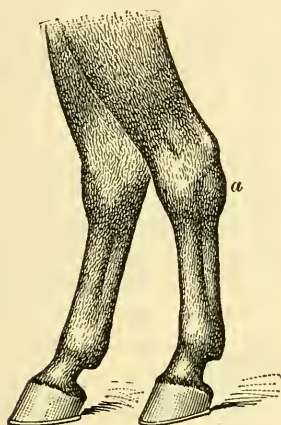


FIG. 19



FIG. 20

Salanders is a skin disease that occurs in the front of the hock, due to heavy feeding of nutritious feed with an insufficient amount of exercise, and constitutes an unsoundness. A similar condition, called **malanders**, sometimes occurs on the front legs at the back of the knee in the folds of the skin.

Michigan pad is a puff, or cushion, due to an enlarged bursa; it occurs just below the hock on the outside of the cannon near the forward edge. It does not produce lameness and it is only a blemish.

Grease is a skin disease that may occur either in the hind heels or in the front, and constitutes an unsoundness. The

hind feet are subject to laminitis, thrush, and quarter and sand cracks; these have already been explained.

40. Examination of the Action.—A horse should be examined in action, and by watching every movement, slight defects of conformation that may have been passed unnoticed should be detected. The animal should be walked directly away from the judge so that he may note any differences that may exist in the flexion of the hocks. A horse that has a bad spavin is ordinarily more or less stiff in the affected hock, which will not be flexed so much as the other. The animal need not be moved farther than 50 yards and a shorter distance will suffice where the judge has become familiar in conducting such examinations. As the animal turns the action and flexion of both hind legs should be noted for evidence of string halt and crampiness.

The manner in which the head and ears are carried should be noted. When the horse is sound and under normal conditions there is usually free play of the ears backwards and forwards, but if the horse has defective sight, he exercises more mobility of the ears and uses these organs to help out impaired vision. Where the sight is bad, one ear is usually carried forwards and the other back and the head carried slightly to one side, the eye with the stronger vision being carried to the front. Under normal conditions ears carried erect with no mobility indicate defective hearing or deafness, but where a horse is suffering severe pain or is excited by anger or fear, both ears may be carried rigid and reclining backwards.

A horse that is slightly lame or sore in one of the front feet will nod its head as it places its weight on the sound foot; if it is lame in one of its hind legs, the croup will drop when the weight is thrown on the sound limb. If the horse is lame in both front legs or in both hind legs, there will not likely be any nodding of the head or dropping of the croup. The action should next be observed from the side, the judge noting the length of stride and the manner of extension and flexion of the limbs, both front and back, and any overreaching, forging, or inclination to stumble. A horse that is sore or lame has a

short stride and sets his feet down with great care. The animal should then be trotted and the examiner should note his movements from the same position as at the walk. As a rule, lameness usually shows itself to a more pronounced degree at the trot than at the walk. No whip or other method of exciting the animal should be used or he may not favor the tender parts.

41. Examination of the Wind.—In testing the wind of a horse the method employed should depend on the kind of work for which the animal is used. Saddle horses should be mounted and given a sharp run of from 200 to 300 yards. As soon as the animal is stopped the examiner should place his ear to the nostrils and note any unusual sounds, such as whistling, roaring, etc., and again note the movements of the flank for indications of heaves. Heavy horses may be satisfactorily tested by drawing heavy loads; however, the customary method at the markets and with most dealers is to hitch them in harness and gallop them to a heavy truck until they are winded. As soon as they are checked the examiner should at once place his ear to the nostrils, for the purpose of detecting whistling, etc.

ESTIMATING OF AGE

42. As age is an important factor in determining the present or future value of a horse, a judge of horses should be able to estimate, with a reasonable degree of accuracy, the age of any horse that he may be called on to judge. A number of characters are influential in indicating age, and a knowledge of these is not difficult to secure; but skill in the application of this knowledge depends largely on continued practice.

The best index to the age of a horse is the teeth, yet there are other considerations that may be important, particularly in the case of a young or very old horse. The age of a horse under $2\frac{1}{2}$ or 3 years can usually be closely approximated by the size and general appearance of the animal. In very old horses, white hairs appear around the temples, the eyes, the nostrils, and elsewhere; the poll is more pointed, the sides of

the face are more depressed, and the cavities above the eyes are more hollowed out than in young or middle-aged horses; the backbone is prominent and the back is often **swayed**, that is, curved downwards, and the animal does not stand squarely on its feet. Another general indication of old age is the appearance of knots, or prominences, on the sides of the tail near the root. The first pair of these knots usually appear when a horse is between 13 and 14 years old, and are due to the flesh withering away, leaving the transverse processes of the first coccygeal vertebra prominent. The second pair of knots usually appears when a horse is between 16 and 17 years old, and the third pair when it is about 21 years old; the second and third pairs of knobs are due to the transverse processes of the second and third coccygeal vertebrae becoming prominent.

In estimating the age of a horse by the teeth, only the incisors—the teeth immediately within the lips—are considered. The order in which the incisors appear is an index of the age up to 5 years; between the ages of 5 and 8 years the age is indicated by the configuration and degree of wear of the teeth; after a horse is 8 years old its age is somewhat difficult to estimate by the teeth, but the configuration and degree of wear are still an index. Experts can approximate the age fairly well until a horse is about 16 or 17 years old; after this age it is impossible to estimate the age with any degree of certainty.

Although the teeth are considered the best index of the age of a horse, they are not absolutely accurate in this respect at any age of the animal. Much depends on the condition under which the animal has been kept and its individuality. In the case of horses that have bones of somewhat open structure, the teeth are likely to indicate that the animals are older than they really are; in the case of horses whose bones are of fine, close texture, the teeth may indicate that the animals are younger than they really are. A horse fed on hard, dry feed is likely to have teeth that show more wear than those of a horse fed on soft, succulent feed, and consequently the teeth will indicate greater age. From this it can be seen that the texture of the bones, the kind of feed the horse has eaten, and other conditions have more or less effect on the teeth.

43. Order of Appearance of the Teeth.—When a colt is foaled none of its teeth are in sight, but the first, or middle, pair of incisors in both the upper and lower jaws usually appears in from 2 to 4 days. The second, or intermediate, pair usually appears when the colt is from about 4 to 6 weeks old, and the third, or lateral, pair when it is from about 9 to 12 months old;

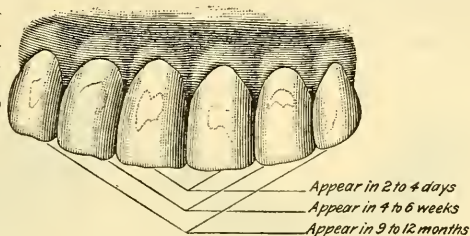


FIG. 21

so that, as a rule, when a colt is 1 year old it has a complete set of incisors. These first teeth are known as temporary, or milk, teeth. In Fig. 21 is illustrated the order of appearance of the milk teeth, only the upper pairs being shown; the lower pairs, of course, appear at practically the same time as the corresponding upper pairs.

A colt retains all of its milk teeth until it is from about $2\frac{1}{2}$ to 3 years old; at about that age the first pair of milk teeth above and below are replaced by permanent teeth. The intermediate pair of permanent teeth replace the corresponding pair of milk teeth when the animal is from about $3\frac{1}{2}$ to 4 years old, and the third, or lateral, pair replace the last pair of milk teeth when the animal is from $4\frac{1}{2}$ to 5 years old. Fig. 22

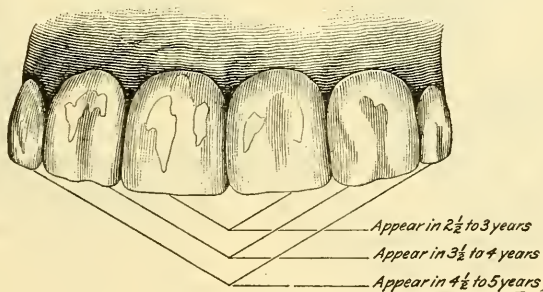


FIG. 22

shows the order of appearance of the permanent incisors, only the upper teeth being shown.

44. Appearance of the Teeth at Different Ages.—When a colt is about a week old, its first pair of milk teeth appears as illustrated in Fig. 23, which shows only the upper pair.



FIG. 23



FIG. 24

It can be seen that these teeth are long from left to right, and that they have well-defined cups or depressions in the ends. Fig. 24 shows the appearance of the upper incisors when a colt is from about 4 to 6 weeks old, or after the second pair of milk teeth has appeared. At this time the first, or middle pair shows wear, the cups having become somewhat shallow. When a colt is about 1 year old, or after the third pair of milk teeth has appeared, the upper incisors appear as shown in Fig. 25. At this age the cups of the first and second pairs show considerable wear, the cups of the middle pair being faint in outline. From the time a colt is 1 year old until the first pair of permanent



FIG. 25

incisors replace the corresponding pair of milk teeth, considerable care is required to estimate the age accurately. This can be done only by taking into account the degree of wear of the different pairs. In Fig. 26 is shown the appearance of the upper incisors when a colt is 2 years old.

At this age the cups in the middle pair have almost or entirely disappeared, but a little discoloration usually remains to mark their boundary.

45. As has already been explained, the middle pair of permanent incisors appears in from about $2\frac{1}{2}$ to 3 years. As a rule, they appear in from about 2 years and 9 months to 2 years and 11 months, and are fully out and in wear in 3 years. Fig. 27 (a) shows the appearance of the lower incisors, if normal, at this age; in (b) is shown a profile view of the teeth. It can be seen that the middle pair of permanent teeth are larger than the milk teeth. There is also a difference in color, the milk teeth being of a fine white color and the permanent teeth of a slightly yellowish tinge. At this age the intermediate milk teeth have become worn down and have lost all or nearly all of their cups; there is a slight dark indentation that can hardly be called a cup. In the lateral, or corner, teeth the cups are greatly worn. If the colt is a male, small caps called

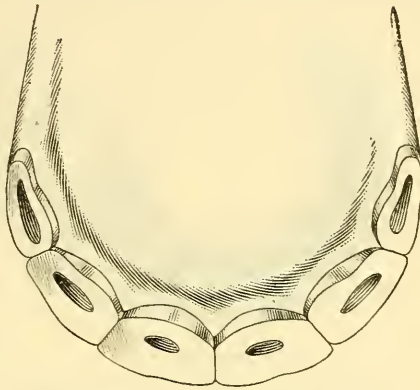


FIG. 26

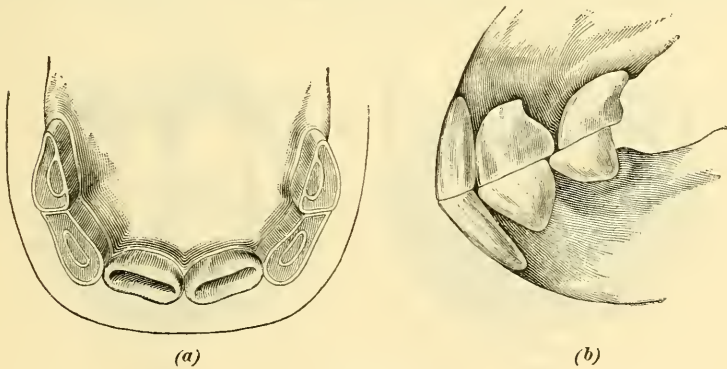


FIG. 27

tusks may be present or in the process of coming through the jaw just back of the corner teeth.

46. When about $3\frac{1}{2}$ years old, a horse loses the intermediate pair of milk teeth above and below, and these are replaced

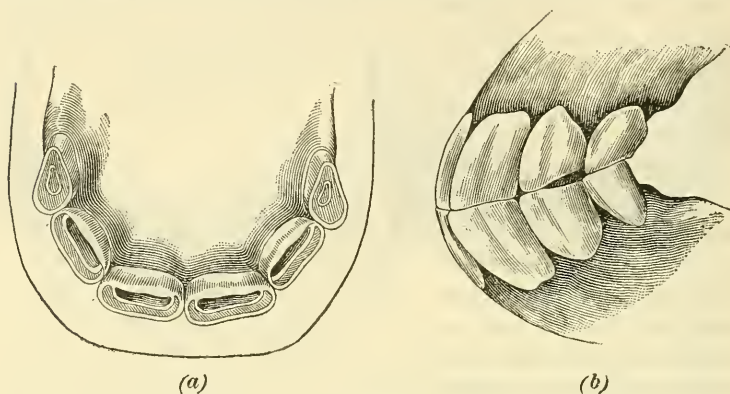


FIG. 28

by permanent teeth; when the animal is 4 years old the teeth will appear as illustrated in Fig. 28. In (a) is shown a view of the lower incisors and in (b) a profile view of both the upper and lower jaws. The middle incisors show more or less wear, and the last pair of milk teeth have little left of their cups but a shallow indentation. The tusks, if present, are larger than they were at 3 years, but are still sharp at the points.

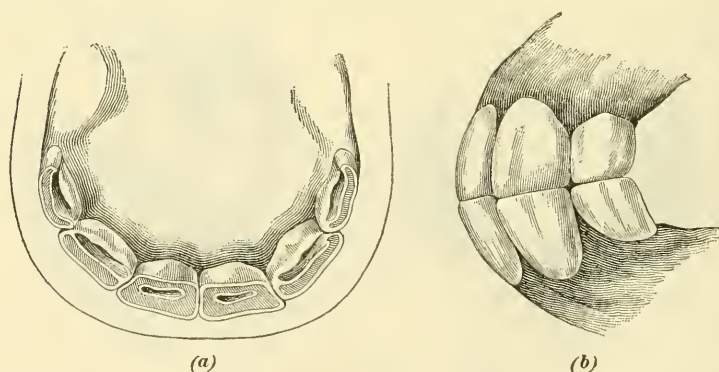


FIG. 29

47. At about $4\frac{1}{2}$ years of age, a horse sheds the last, or corner, pair of milk teeth, and by the time the animal is 5 years

old the last permanent pair are up to wearing, so that the horse has a full complement of permanent teeth. The appearance of the incisors at this age is illustrated in Fig. 29 (a) and (b). At this age the middle incisors show considerable wear. They have also changed in shape, having become rounder on the inner surface. The intermediate incisors show some wear.

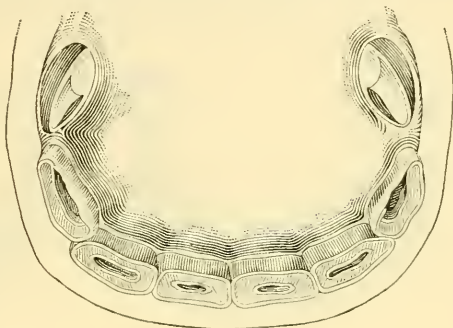


FIG. 30

When the permanent incisors first appear they have cavities or cups called *crowns*; these are similar to the cavities of the milk teeth but are deeper. As a horse becomes older, there is a slight growth of the teeth and a wearing away of the crowns. The incisor teeth become longer and the upper and lower sets form an acute angle with each other. When a horse is 6 years old the middle pair of incisors have been in wear 3 years and in that time have grown out so that the crowns are worn down to such an extent that the cups have disappeared from the lower pair; the cups disappear more rapidly in the lower than

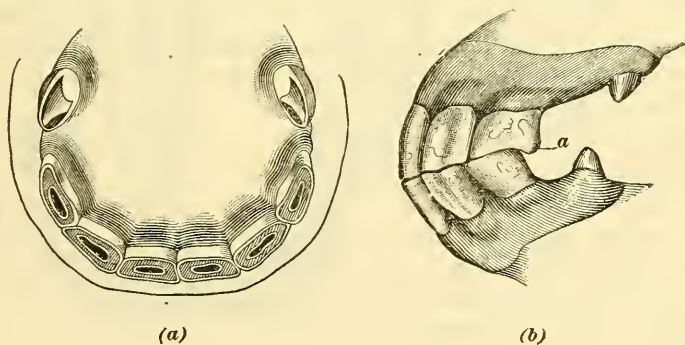


FIG. 31

in the upper teeth. The appearance of the lower incisors when a horse is 6 years old is shown in Fig. 30.

48. At 7 years of age the cups have disappeared from the lower intermediate pair, although small dark spots can often

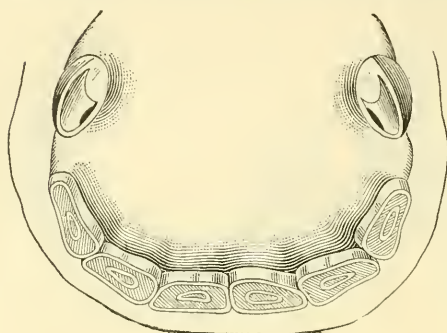


FIG. 32

be seen. The corner teeth still retain their cups, but show considerable wear. The appearance of the incisors of a 7-year-old horse is illustrated in Fig. 31. In (a) is shown a view of the lower teeth and in (b) a profile view of both jaws. At 7 years

notches appear in each of the upper corner teeth, due to uneven meeting with the corresponding lower teeth; one of these notches is shown in the tooth *a* in (b). At 8 years of age the notch in the corner incisors is strongly marked, and the cups of the lower incisors are usually entirely worn off, leaving the tables smooth or flat, although irregularities sometimes occur and slight cups may still be present. At this age the teeth assume a somewhat triangular shape. The appearance of the lower incisors at 8 years old is shown in Fig. 32.

49. When a horse is 9 years old the cups should have disappeared from the upper central incisors, and should be shallow in the intermediate and corner pairs. The appearance of the upper teeth at 9 years of age is shown in Fig. 33. At 10 years of age, the cups will have disappeared from the upper intermediates, but may still be seen in the corner teeth, although shallow. The appearance at 10 years of age is shown

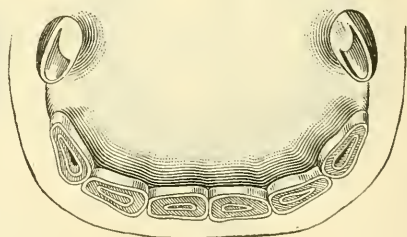


FIG. 33

in Fig. 34. When a horse is 11 years old all of the cups will have disappeared from the upper incisors. However, in the case of

some horses that have dense bone, it is not uncommon to find cups in the upper corner teeth at 12 and even 15 years of age. The appearance at 11 years is illustrated in Fig. 35.

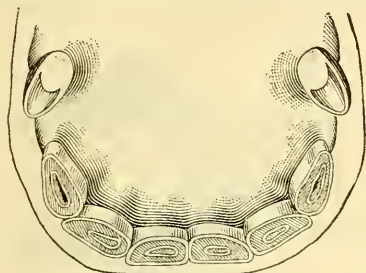


FIG. 34

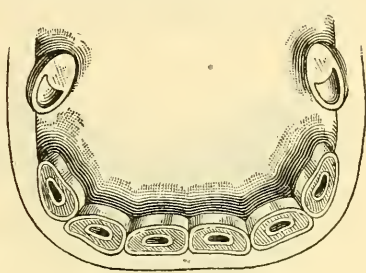


FIG. 35

50. After the eleventh year it is exceedingly difficult to estimate the age of a horse by its teeth. However, the shape and the angle of the incisors usually indicate whether a horse is just past this age or is considerably older. In Fig. 36 is illustrated the shape of a permanent incisor, the solid lines indicating the position of the wearing surface at successive ages, and the cross-sections showing how the surface contour

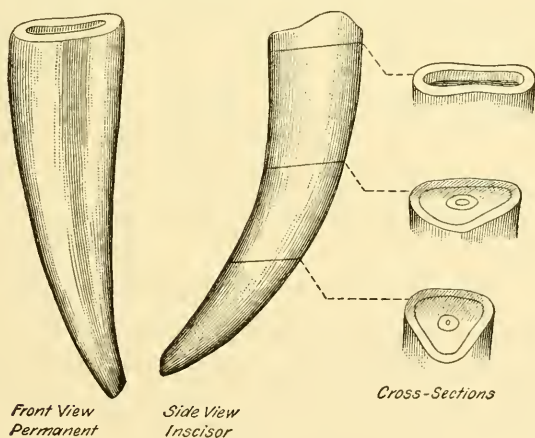


FIG. 36

changes with advancing years. Thus, it can be seen that the degree of triangularity of the teeth is a guide to the age.

When a horse is young the upper and lower incisors meet nearly vertical with each other. As the horse advances in years the angle of the incisors becomes sharper, until in a 20-year-old animal they meet at an angle of about 45 degrees.

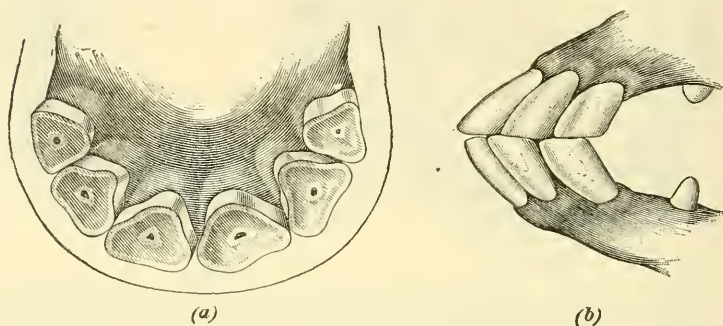


FIG. 37

The appearance of the incisors at 20 or 21 years is shown in Fig. 37. In (a) is shown a view of the lower teeth and in (b) a profile view of the jaws.

HORSE JUDGING

EXAMINATION QUESTIONS

- (1) What is weaving, and why is it objectionable?
- (2) Explain how the eyes of a horse may be tested for defective vision.
- (3) What is a wind gall, and under what conditions does it constitute an unsoundness?
- (4) Give the order of appearance of the temporary incisors in a colt.
- (5) Explain how the permanent incisors of a horse may be distinguished from the temporary incisors, and give the approximate age of the animal at which each pair of the permanent incisors appears.
- (6) Explain the meaning of the terms light horses and heavy horses as used in this Section.
- (7) What constitutes an unsoundness in a horse?
- (8) Name some of the unsoundnesses that disqualify a horse for hard service.
- (9) Describe the appearance of a horse that is coon-footed.
- (10) What is meant by quality as applied to horses?
- (11) Explain what is meant by the term: (a) winging; (b) interfering; (c) hitching; (d) cross-firing; (e) forging.
- (12) Why is it inadvisable to clip the legs and foretops of horses that are to be sold on a horse market?
- (13) Why are geldings usually preferred to mares for city use?

(14) What points should be studied in making a general examination of a horse?

(15) From what positions can the conformation of a horse be best studied?

(16) Explain briefly what is meant by the term: (a) buck-kneed; (b) calf-kneed.

(17) How may the quality of a horse be judged?

(18) Name the most distinctive temperaments of horses.

(19) What two objects are sought in making a detailed examination of a horse?

(20) What is meant by (a) parrot mouth; (b) undershot mouth?

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